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Docket No. 14XT00219/135960/GEM-0127

REMARKS / ARGUMENTS

Status of Claims

Claims 1-23 and 25-40 are pending in the application and stand rejected. Applicant has amended Claims 1, 36 and 38, leaving Claims 1-23 and 25-40 for consideration upon entry of the present Amendment.

Applicant respectfully submits that the rejections under 35 U.S.C. §103(a) have been traversed, that no new matter has been entered, and that the application is in condition for allowance.

These amendments and accompanying remarks were not presented earlier because Applicant did not fully appreciate the nature of the Examiner's position until Applicant was advised in more detail of the position by the final rejection, which introduced the Eggelsmann et al. reference and new grounds of rejection. The claim amendments presented herein, which Applicant respectfully requests entry thereof, should require only a cursory review by the Examiner as they merely include clarifying language, and the scope of search involving the clarifying language has already been addressed by the Examiner's first and second searches involving classifications 378/101 and 378/131. Accordingly, such amendments should not require further consideration or search.

Rejections Under 35 U.S.C. §103(a)

Claims 1-23 and 25-40 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Eggelsmann et al. (U.S. Patent No. 4,024,424, hereinafter Eggelsmann) in view of Hansen et al. (U.S. Patent No. 6,556,654, hereinafter Hansen).

Applicant traverses these rejections for the following reasons.

Applicant respectfully submits that the obviousness rejection based on the References is improper as the References fail to teach or suggest *each and every element of the instant invention in such a manner as to perform as the claimed invention performs*. For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness. *In re Fite*, 5 U.S.P.Q.2d 1596, 1598

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(Fed. Cir. 1988) (Emphasis added). The Examiner must meet the burden of establishing that all elements of the invention are taught or suggested in the prior art. MPEP §2143.03.

Additionally, Applicant respectfully submits that obviousness cannot be supported by *a proposed modification that would render the prior art invention being modified unsatisfactory for its intended purpose. In re Gordon*, 221 USPQ 1125 (Fed. Cir. 1984); MPEP §2143.01. (Emphasis added).

Regarding Independent Claims 1, 36 and 38

Applicant has amended independent Claims 1, 36 and 38, to now recite, inter alia,

“...a high-voltage connector... *the high-voltage connector connected to the cathode and configured to connect to a high-voltage generator...*”.

No new matter has been added as antecedent support may be found in the application as originally filed, such as in the inherent language of the claims themselves, at Paragraph [0025], and at Figure 2, for example.

Dependent claims inherit all of the limitations of the respective parent claim.

Here, Applicant more clearly claims a high-voltage connector (25) that is connected to the cathode (30), and that is configured to connect to a high-voltage generator (34).

While Applicant believes that the inherent language of the pre-amended claims themselves supports the limitation that the high-voltage connector is connected to the cathode and is configured to connect to a high-voltage generator (a *high-voltage* connector is inherently configured to connect to a *high-voltage* generator of some kind), Applicant has nonetheless provided clarifying amendment language in an effort to further advance this application to allowance.

Evidence of this inherency in the claim language may also be seen in the Examiner's own comments, where the Examiner states “It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ *the high voltage cable/cathode insulator arrangement* as suggested by Hansen in the apparatus of Eggelsmann *for delivering the high-voltage to the cathode of the x-ray tube.*”

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(Paper 12062005, page 3) (emphasis added). As such, Applicant finds that the Examiner has already interpreted the pre-amended claims with an eye to the amended limitation, and at least for this reason, respectfully submits that the amendments should therefore not require further consideration or search.

In rejecting the instant claims for obviousness, the Examiner alleges that Eggelsmann teaches "a part of a high-voltage connector (such as an *insulator (4) associated to a high-voltage cable system*)", acknowledges that Eggelsmann does not teach the complete structure of a high-voltage connector, and looks to Hansen to cure this deficiency. Paper 12062005, pages 2-3.

The Examiner further remarks that "It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the high voltage cable/cathode insulator arrangement as suggested by Hansen in the apparatus of Eggelsmann *for delivering the high-voltage to the cathode of the x-ray tube.*" Paper 12062005, page 3.

Applicant respectfully disagrees that one skilled in the art would be motivated to do what Applicant has done by modifying Eggelsmann as suggested by Hansen to arrive at the claimed invention, since such modification would still be absent each and every element of the claimed invention *arranged so as to perform as the claimed invention performs*, and would render Eggelsmann *unsatisfactory for its intended purpose*.

At Col. 1, lines 60-65, Applicant finds Eggelsmann to disclose and teach "The X-ray tube according to the invention differs from the known rotary anode X-ray tubes in that two voltages or potentials *must be applied to the anode construction: the high voltage for the anode* and earth for the rotor." At Col. 2, lines 59-63, Applicant finds Eggelsmann to disclose and teach "*The high voltage is applied to the anode via a further bearing 13* which is provided in an insulator which is connected to the tube envelope 1 and which comprises a conical opening *for accommodating a high voltage plug.*"

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Here, Applicant finds Eggelsmann to disclose and teach an anode X-ray tube having *high voltage applied to the anode 2* via the bearing 13 and the high-voltage plug connector at insulator 14.

If one skilled in the art were to modify Eggelsmann in view of Hansen (alleged by the Examiner to teach a high voltage connector), then modified Eggelsmann would have the *high voltage connector connected to the anode not the cathode as claimed in the instant invention*. Accordingly, Eggelsmann as modified by Hansen would still be missing an element of the claimed invention arranged so as to perform as the claimed invention performs.

Contrary to the foregoing modification of Eggelsmann, if one skilled in the art were to modify Eggelsmann in view of Hansen as alleged by the Examiner, then Eggelsmann would be modified to have the *Hansen high voltage connector connected to the Eggelsmann cathode 3* via plug insulator 4, which would result in an applied high-voltage to the X-ray tube generally, but not at the anode (required for Eggelsmann to perform as intended), and there would be no earth path for the modified Eggelsmann tube to work properly since the anode is insulated from earth via insulator 11 (see Eggelsmann Col. 2, lines 50-58). If the Eggelsmann anode were not insulated from earth, then the applied high-voltage at insulator connector 14 (the intended purpose of Eggelsmann) would result in a dead short to earth. Accordingly, *a modification of Eggelamann in view of Hansen as alleged by the Examiner would render Eggelsmann unsatisfactory for its intended purpose (high voltage applied to the cathode when the intended purpose of Eggelsmann is high voltage applied to the anode)*.

In view of the foregoing, Applicant submits that the combination of Eggelsmann and Hansen as alleged by the Examiner would result in either an absence of each and every element of the claimed invention arranged so as to perform as the claimed invention performs, or a modified Eggelsmann that would be rendered unsatisfactory for its intended purpose.

In view of the foregoing, and in a first instance, Applicant submits that the References fail to teach or suggest each and every element of the claimed invention and

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are therefore wholly inadequate in their teaching of the claimed invention as a whole, fail to motivate one skilled in the art to do what the patent Applicant has done, fail to offer any reasonable expectation of success in combining the References to perform as the claimed invention performs, and discloses a substantially different invention from the claimed invention, and therefore cannot properly be used to establish a prima facie case of obviousness.

Also in view of the foregoing, and in a second instance, Applicant submits that obviousness cannot be supported by a proposed modification that would render the prior art invention being modified unsatisfactory for its intended purpose, and therefore such a modification cannot properly be used to establish a prima facie case of obviousness.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of all rejections under 35 U.S.C. §103(a), which Applicant considers to be traversed.

Applicant has amended the claims for presentation in a better form that more clearly reflects Applicant's invention. The claim amendments should only require a cursory review by the Examiner as they merely include clarifying language, and the scope of search involving the clarifying language has already been addressed by the Examiner's first and second searches. Accordingly, such amendments should not require further consideration or search.

In light of the foregoing remarks and amendments, Applicant respectfully submits that the proposed amendments and arguments comply with 37 C.F.R. §1.116 and should therefore be entered, and with their entry that the Examiner's rejections under 35 U.S.C. §103(a) have been traversed, and that the application is now in condition for allowance. Such action is therefore respectfully requested.

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The Commissioner is hereby authorized to charge any additional fees that may be required for this amendment, or credit any overpayment, to Deposit Account No. 50-2513.

In the event that an extension of time is required, or may be required in addition to that requested in a petition for extension of time, the Commissioner is requested to grant a petition for that extension of time that is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to the above-identified Deposit Account.

Respectfully submitted,

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